

BANDELIER NATIONAL MONUMENT

BUSINESS PLAN

Published Fall 2001

All financial information is based on the Federal fiscal year 2000 (ending September 2000), the last completed fiscal year at the time of the analysis.

All photos are the property of George Huey, Dale Coker and the National Park Service.

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ABOUT THIS PLAN

Like any business, government agencies must communicate with their stakeholders, namely Congress and the American public, to account for funds allocated through appropriations, to provide an accurate picture of current financial health, and to highlight future strategic intent. The Business Plan Initiative (BPI) provides an opportunity to do just that.

Formed in 1997 through a partnership involving the National Park Service (NPS), the National Parks Conservation Association, and a consortium of private foundations, the Initiative's purpose is to strengthen financial management capabilities in park units and provide a vehicle for meaningful dialogue on the state of park needs today. The BPI program is neither mandatory, nor one in which all parks take part. Bandelier National Monument is pleased to have been one of 13 parks to participate in 2001, and believes strongly in the Initiative's potential.

This plan begins by presenting an historical overview of Bandelier, both in qualitative and quantitative terms. The reader is offered a flavor of what makes this park special and



Park visitors get a glimpse of ancestral Pueblo life by visiting Ceremonial Cave, a kiva perched 140 feet above the Frijoles Canyon floor.

insight into the trends of park staffing and funding over the last 20 years. It then highlights the financial picture of the park's major activity areas. Here we concentrate on what resources were available in fiscal year 2000 and identify the level of additional funding required to run the park according to operating standards. Finally, the Plan concludes with a look at Bandelier's key challenges and opportunities. The result is a comprehensive and balanced portrait of the park's operating environment.

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1.1 EXECUTIVE SUMMARY



Bandelier National Monument takes pride in its record of accomplishment. The extent, scope, and importance of its program activity are truly impressive for a park its size. Notwithstanding its track record, this Business Plan reveals that Bandelier suffers from a serious shortfall in operating funds and requires sizeable investment dollars to address a mounting maintenance backlog.

In analyzing Bandelier's growth since 1980, several trends are evident. The base budget has increased almost 70% after adjusting for inflation, but this increase has not matched rising labor and non-labor costs, nor has it reflected the dramatic growth in program responsibility. Between 1980-2000, park full-time equivalent staff (FTEs) went from 14 to more than 54. And during just the past ten years, rising labor costs exceeded base funding increases by approximately \$530,000, even after adjusting for inflation. Also evident was uneven growth among Bandelier's divisions. While Resource Management has grown considerably to reflect the park's increasing responsibilities to protect and preserve natural and cultur-

al resources, funding for support functions like Maintenance and Management & Administration has remained flat.

Managers were asked to document what they spent in Fiscal Year 2000 on their program and what they would need to fulfill legislated and park-mandated operational standards. The result was telling. Total available funding from all sources was \$4,145,000, with the number of FTEs being 54. For the park to operate at its potential, it would need an additional \$2,478,000 (after adjustments) for a total required funding of \$6,911,000. This translates into an operating shortfall of approximately 36%. The corresponding personnel need was an additional 47 FTEs, for a total requirement of 101.

Bandelier recognizes it cannot address the sum of its needs at one time. Priorities must be established. To help determine the appropriate strategic thrusts, the park identified its six principal operating challenges. From there, park priorities flowed easily and coherently. They are highlighted below.

Manage and Protect Resources.

Whether trails maintenance, curation, or wildlife management, Bandelier's resource bounty demands special attention. Specific investments and staff additions will enable the park to fulfill its stewardship role.

Communicate and Collaborate.

Bandelier is one player in a complex community of interests. It must assume a greater external orientation and build stronger partnerships with a host of neighboring agencies, organizations and individuals.

Strengthen Human and Capital Infrastructure.

As Bandelier expands its program reach, a number of investment and operational decisions must be made to stabilize the park's aging infrastructure and strengthen foundation units such as the maintenance and management functions.

1.2 SUPERINTENDENT'S FORWARD

THE BUSINESS OF BANDELIER

We don't often think of national parks as a business. National parks are not driven by profits. National parks are operated as public organizations within a large bureaucracy. National parks have a mission that is undeniably tied to America's heritage. But national park managers, like managers of any organization, must always ask themselves a number of fundamental questions:

What is our basic activity?

How do we accomplish that activity?

How can we build a stronger organization?

We approached this Business Plan with the intention of sharing with others how we utilize our human and fiscal resources and identifying the major challenges and opportunities facing Bandelier today. With the guidance of two business consultants, we borrowed standard private-sector business analy-

sis techniques and adapted them for our operations.

As a staff, we had the opportunity to re-think the work that we do, why we do it, and how we get it done. We gained a better understanding of the park's budget and management history. Park Management and decision-making will benefit from the learning that took place through this process.

The National Park Service serves the public. We are keepers and storytellers of the American legacy. The public expects and demands professional, accountable, and informed stewardship of America's special places. The Bandelier Business Plan will be a key tool in helping this park fulfill those expectations.

Dennis A. Vásquez



Dennis Vásquez, Superintendent
Bandelier National Monument

VISION

Bandelier National Monument will manage an exemplary, integrated program of cultural and natural resources management. Working in collaboration with interagency, tribal, and local communities, park staff will achieve their goals in an innovative, sensitive and balanced manner, and will dedicate themselves to quality services, products, and information.

MISSION

Bandelier National Monument will provide the means for staff and the public to preserve, protect, understand, and enjoy the park's cultural and natural resources. This will be accomplished through an integrated and collaborative program where management activities support naturally functioning ecosystems consistent with cultural resource preservation.

PARK CHRONOLOGY

1.6 MILLION & 1.2 MILLION YEARS AGO

Tremendous series of volcanic eruptions (600 times larger than Mount St. Helens) from the Jemez Mountains create the Pajarito Plateau.

8000 BC

According to archeological evidence, humans first occupy the Northern Rio Grande Valley around this time.

600 AD

Beginning of Developmental Period in Pueblo Cultural Sequence in Rio Grande Valley. Temporary sites appear around Santa Fe area.

MID 1100s

Ancestral Pueblo people settle on the Pajarito Plateau and in Frijoles Canyon. They lived in the canyon until the mid 1500s.

1740

Captain Andres Montoya Petitions the Spanish Crown for the land grant between Ancho and Alamo Canyons, which includes Frijoles Canyon. His Descendants remain until 1811 when the Spanish authorities order the area cleared because it had purportedly become a "den of outlaws".



The ancestral Pueblo people living on the Pajarito Plateau 500-900 years ago created unique architectural features, known as cavates, by digging into the soft volcanic tuff cliffs.

*The drums beat no more, and the songs are now silent.
Yet the spirit of those who lived here continues to dwell in
the magic that is Bandelier National Monument. Natural
beauty and years of culture bring to life the enchanted
land of tan cliffs, forested mesas, and deep gorges.*

— Cecilia Shields

PARK OVERVIEW

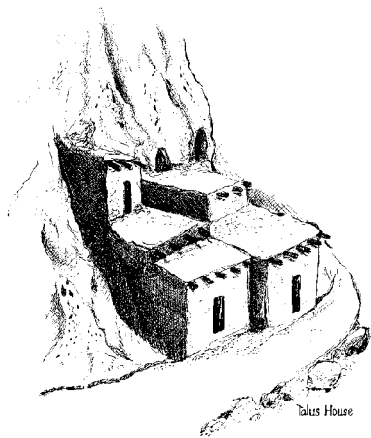
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2.1 THE HISTORY OF BANDELIER



Perched on the eastern slopes of the Jemez Mountains in the high desert of northern New Mexico, Bandelier National Monument possesses a wealth of natural and cultural beauty. The park offers visitors a stunning array of wilderness, ranging from the Rio Grande river valley, to vast and dramatic canyons, to high mountain forests of ponderosa pines and mixed conifers.

Equally compelling is its connection to Native American cultures. Evidence of human activity dates back 10,000 years, but the most visible signs are the remains of ancestral Pueblo settlements scattered throughout the park and its surrounding area. Sometime after 1100 A.D., ancestral Pueblo people first arrived in the Pajarito Plateau (home of present day Bandelier) and settled in the area's many canyons and mesas. One of the largest and best-



preserved settlements, called Tyuonyi, lies in Frijoles Canyon close to the Visitor Center. There one will find the remains of a large circular community house that probably stood three stories tall and contained over 400 rooms. Just above are cliff dwellings, known as cavates, which housed families for hundreds of years. Built directly into the friable volcanic tuff, cavates are found in canyons across the plateau. The Pueblo people left Frijoles sometime in the 1500s, concentrating their settlements along the Rio Grande valley a few miles to the east.

It was not until October 1880 when Adolph Bandelier, for whom the Monument is named, and his Cochiti Indian guide Juan José Montoya ventured into Frijoles Canyon that the magic of Bandelier was revealed to the world beyond the area Pueblos and early Spanish settlers (who moved into the area in



The volcanic foundation beneath Bandelier and the surrounding area are seen most clearly from space.



Tyuonyi, a large circular pueblo located in Frijoles Canyon, is one of the most visited sites in Bandelier National Monument.

THE HISTORY OF BANDELIER (continued)

The significance of Bandelier lies in its superb combination of cultural, natural, and wilderness values. Whether it is historic CCC structures, over 2,500 surveyed archeological sites, or piñon-juniper woodlands, Bandelier's importance to a host of communities is unquestioned. It is an integral component of the larger Pueblo culture of the southwest, and provides a continuing context for traditional practices today. It contains one of the highest concentrations of Pueblo cavates in the world. It supports an unusual diversity of vegetation types and associated faunas due to its range in elevation and variety of landforms. And its fire history and ecology are among the most thoroughly studied in the world.



Ladders provide park visitors with access to many of the Frijoles Canyon cavates.

Our Neighbors and Partners

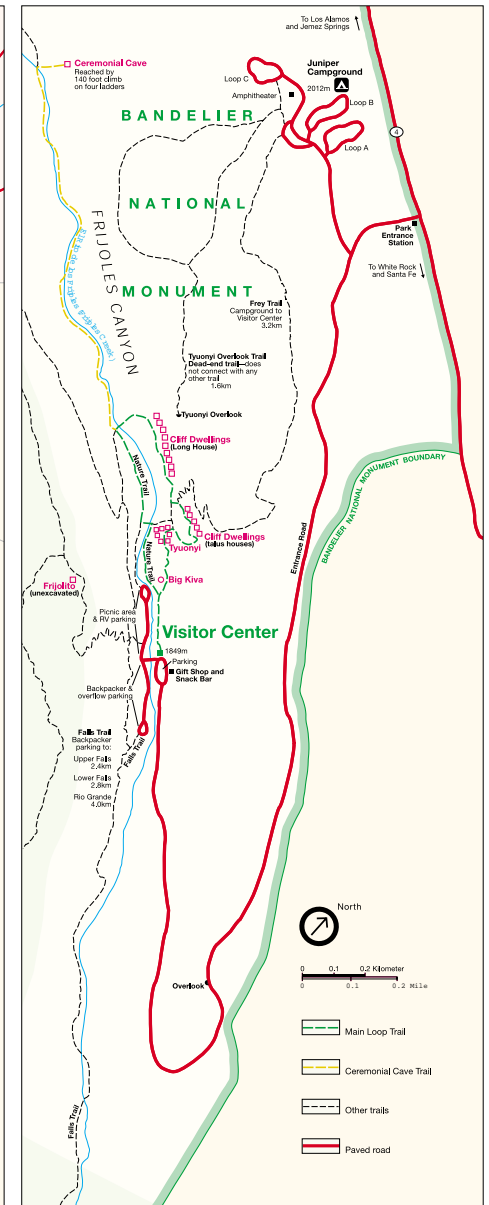
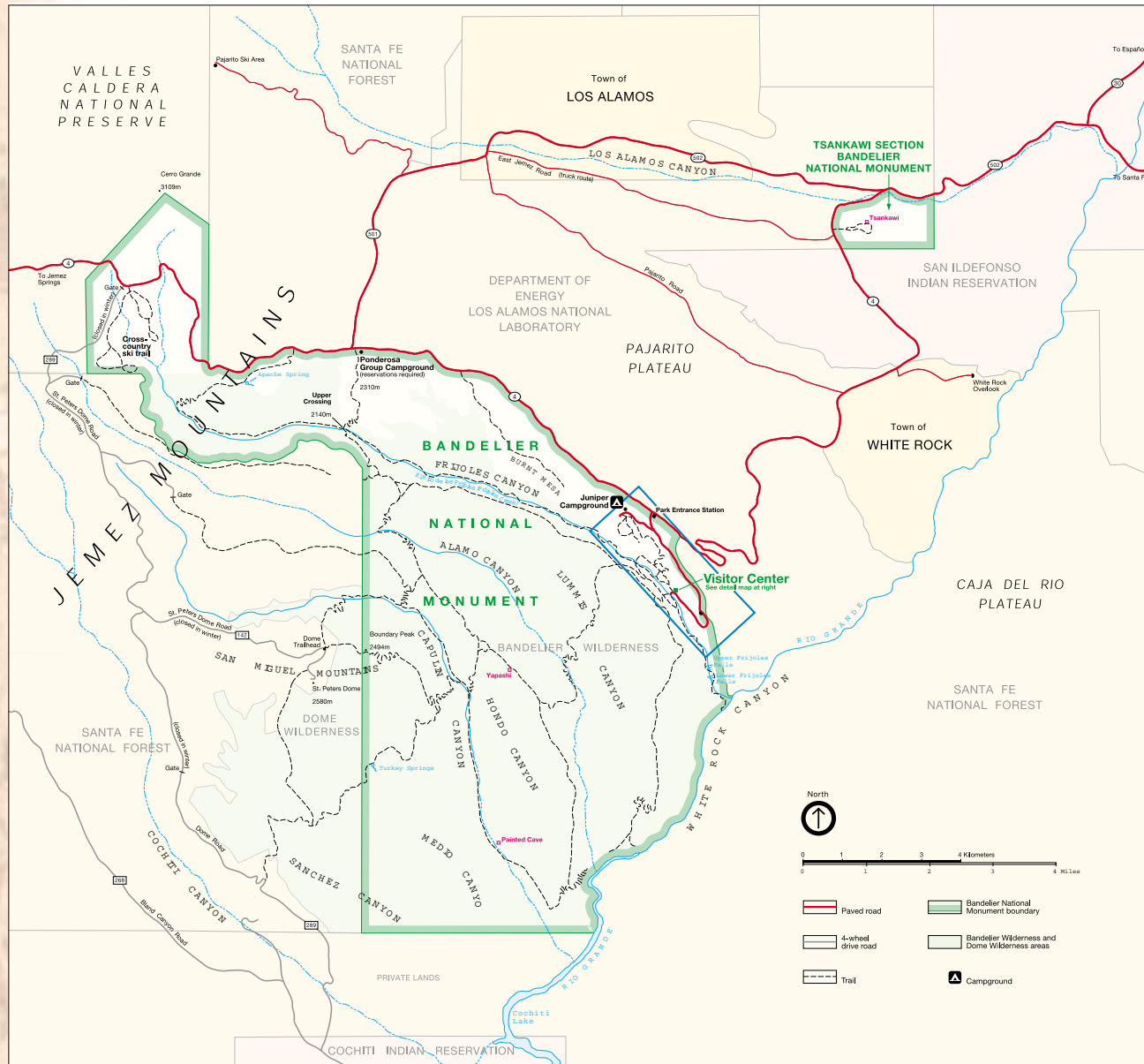
Bandelier is a key player within a network of agencies that manage northern New Mexico's natural, cultural and recreational resources. Bandelier is building strong working relationships with adjacent land managers and organizations sharing common interests.

Bandelier has a special relationship with local Pueblos. A formal consultation program exists with six Pueblos that have ancestral ties to the Pajarito Plateau. As part of this program, Bandelier consults regularly on management issues affecting cultural resources.

The Department of Energy's Los Alamos National Laboratory is one of the largest research institutions in the world and borders Bandelier to the northeast. The Valles Caldera National Preserve is situated northwest of the park. And the Santa Fe National Forest, managed by the US Forest Service, surrounds much of the park to the south and west. Together with Bandelier, these organizations cooperate on a host of issues, including watershed restoration, vegetation management, fire management, archeological research, and protection.

Other organizations Bandelier is currently working with include the Bradbury Science Museum in Los Alamos to increase area visitation, the Los Alamos Public Library to share park information and data, the Museum of New Mexico to develop education programs, and the University of Pennsylvania to develop archeological preservation techniques. It is expected this form of outreach will only grow in the coming years.

2.2 PARK MAP



2.3 PARK INVENTORY

CULTURAL RESOURCES

Surveyed archeological sites	2,500
Archeological structures	2,256 (includes cavates)
Pueblo cavates	> 1,300
Collections	
Natural resources	32,000
Archives	205,413
Archeological	989,605
Ethnographic	240
Historical	25,159
CCC historic buildings	31
CCC furnishings	184

NATURAL RESOURCES

Acres of land	33,000
Acres of wilderness preserve	23,000
Elevation range	5,000ft — 10,000ft
Annual precipitation	16 inches
Threatened and endangered species	4
Species of special concern	3
Birds	> 175
Butterflies	> 81
Fish species	approximately 18
Mammals in Bandelier	61
Tree species	20

PARK INFRASTRUCTURE

Miles of trails	72
Miles of roads (paved and unpaved)	7
Parking areas	3
Number of picnic areas	1
Number of amphitheaters	1
Number of campgrounds	2
Number of administrative buildings	29
Number of housing units	22



The Two-Tailed Swallowtail is a common site in the Bandelier wilderness.

PARK CHRONOLOGY

1880

People from Cochiti Pueblo guide historian and ethnologist Adolph Bandelier to their ancestral homes Frijoles Canyon. Describes the Canyon in his journal as the "grandest thing I ever saw."

1908

The talent of potter Maria Martinez first comes to the attention of the world beyond her Pueblo. Archeologist Edgar Lee Hewett asks her to replicate prehistoric pottery found in the park. She and her husband Julian open the way for other talented Native American artists to make a living by traditional craft.

1916

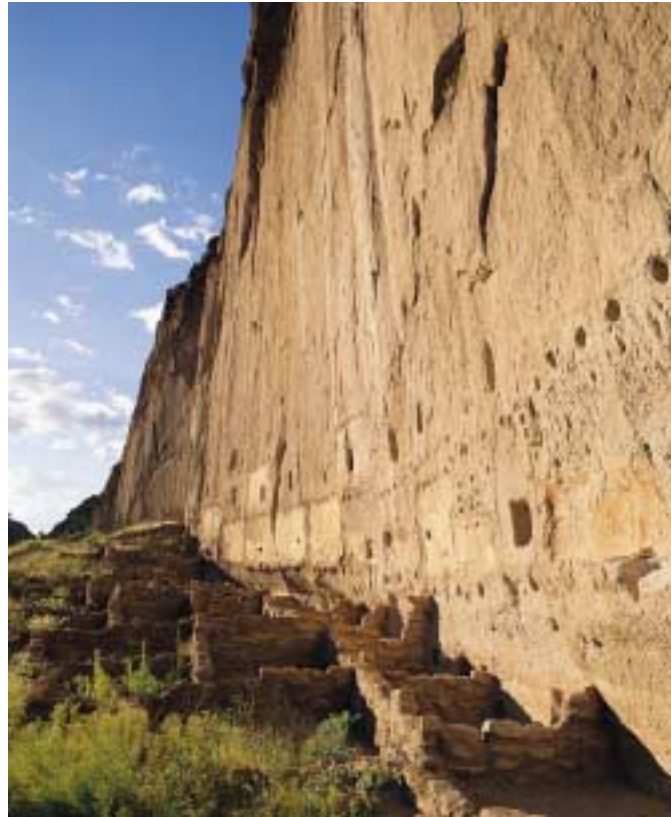
President Woodrow Wilson creates Bandelier National Monument and entrusts its management to the US Forest Service.

1925

Evelyn and George Frey come to Frijoles Canyon to manage the Lodge of the Ten Elders (originally opened in 1907). Rebuilt during the 1930s, Mrs. Frey runs the "new" lodge until 1976, after which it is turned over to the park. She continues to live and work in the park until her death in 1988.

1932

Bandelier is transferred to the National Park Service. At that time, the Otowi unit is added to the Park.



Apartment-like structures such as Long House were built by ancestral Pueblo people along many Frijoles Canyon walls.

The Pueblo cliff dwellings, suspended between heaven and earth, halfway between the earth's core and the face of the sun, between light and dark, are transitional spaces between yesterday and tomorrow.

— Unknown

PARK GROWTH

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3.1 HISTORICAL FUNDING



Over the past 20 years, Bandelier has done an excellent job of attracting funding (*Figure 3.1*). In absolute terms, its base budget has more than tripled in size, increasing from \$638,000 in 1980 to \$2.2 million in 2000. In recent years, the park has been able to nearly match base funding with non-recurring project funding and revenue sources (*Figure 3.2*). However, after adjusting for inflation, the real increase in base funding is approximately 69%. These increases, while sizable, have not kept pace with growth in the park's mission and related costs. And project funding is often earmarked for specific purposes, usually lasts from one to three years, and cannot be used to hire staff or cover operating overhead.

Growth in park personnel has outpaced both the nominal and real growth in base funding, increasing from 14 FTEs in 1980 to more than 54 in 2000. During just the past ten years, rising labor costs exceeded base funding increases by approximately \$530,000, even after adjusting for inflation (*Figure 3.3*). Bandelier has evolved into a com-

HIGHLIGHTS:

- Inflation adjusted park budget grows 69% since 1980, but does not keep pace with increases in personnel and other costs.
- Largest program growth since 1994 is Resource Management
- Management & Administration and Maintenance budgets remain flat since 1994.

Figure 3.1: Historic Base Funding Analysis

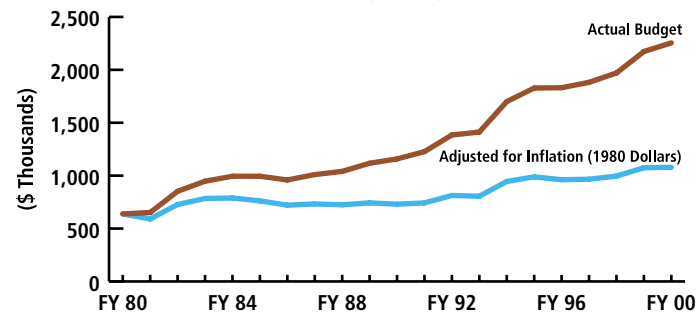
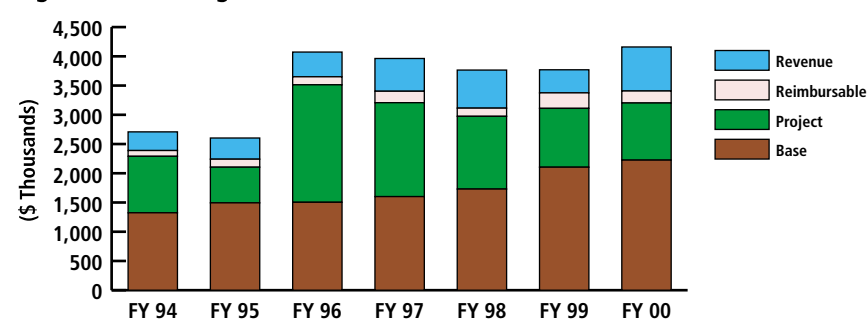
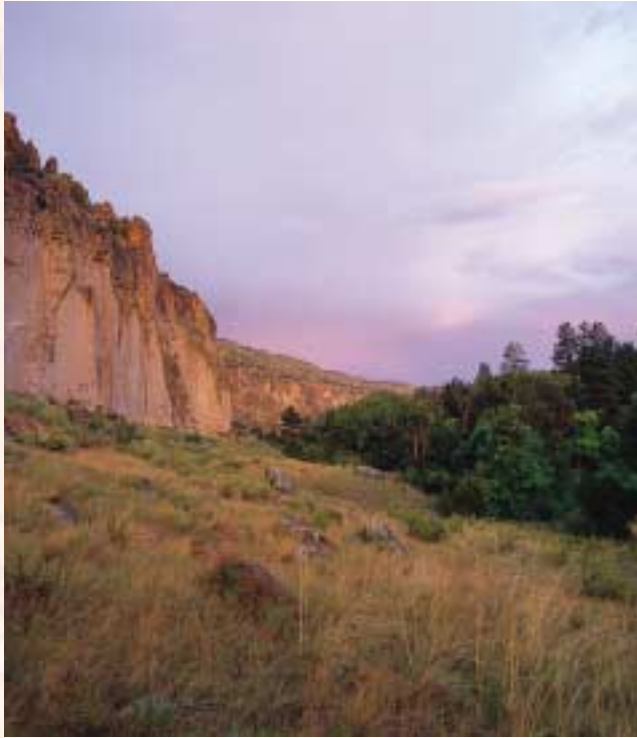


Figure 3.2: Funding Source Trends





Sunset in Frijoles Canyon.

Figure 3.3: Gap Analysis - Unfunded Increase in Staff Costs (1990 - 2000)

Inflation Adjustment 1990-2000	24%
Net FTE/Staff Additions 1990 - 2000	10
1990 ONPS Base Funding	\$1,158,000
2000 ONPS Base Funding	2,224,689
2000 ONPS Base Funding (1990 Dollars)	1,688,542
Increase in Base Funds Available (1990 Dollars)	530,542
1990 Average Employee Salary and Benefits	18,949
2000 Average Employee Salary and Benefits	46,219
2000 Average Employee Salary and Benefits (1990 Dollars)	35,080
Increase in Average Employee Cost (1990 Dollars)	16,131
Required Funding for 10 New Employees Using 2000 Average Costs (1990 Dollars)	350,801
Required Incremental Funding for Initial 44 FTEs Using Increase in Average Employee Costs (1990 Dollars)	709,762
Total Additional Employee Funding Required (1990 Dollars)	1,060,563
Net Surplus (Additional Expense) Due to Base Funding Increase not Matching Rising Employee Costs (1990 Dollars)	(530,021)
Net Surplus (Additional Expense) Due to Base Funding Increase not Matching Rising Employee Costs (2000 Dollars)	(657,756)

HISTORICAL FUNDING (continued)

plex organization with a significant workload for a park of its size and budget. Figure 3.4 shows the vast majority of Bandelier's growth since 1994 was in the Resource Management function, as the park has better recognized and sought to meet obligations created by its wealth of cultural and natural resources.

In addition to the Resource Management group, there have been numerous subtle cost drivers and pressures on staffing throughout the organization. While difficult to quantify, they include:

- **National Park Service Reorganization**—The mid 1990s reorganization cut regional staff

considerably, transferring administrative workloads to parks without matching funding increases.

- **Development of Technology**—From 1984 to 2000, Bandelier grew from having no computer network to a 65-node network serving two sites. Cost drivers include technical support, equipment acquisition, maintenance, and replacement.

- **Growth in Peak Visitation Periods**—Bandelier's visitor statistics between 1980 and 1999 show a sizeable growth in park peak season (Figure 3.5). Today, it stretches from April to November, requiring more resources and longer tenure of seasonal staff.

- **National Historic District Designation**—When Bandelier's CCC structures were designated a National Historic District designation in 1987, compliance costs and use constraints increased.

Outside of labor costs, Bandelier, like other parks, has seen a slow but steady rise in a variety of costs including waste disposal, recycling, equipment service contracts such as for GSA fleet maintenance, and supplies and materials.

HISTORICAL FUNDING (continued)

An analysis of total expenditures by type (*Figure 3.6*) reveals few discernable trends since 1994, the period for which such data is available. However, a look at the growth in salary and benefit expenditures as a percentage of base funds (*Figure 3.7*) further reflects the strains on the organization. Salary and benefits comprised 82% of base funds in 2000, up from 72% in 1990.

Other highlights from Bandelier's funding history include the following:

- Figure 3.4 shows that both the Management & Administrative and Maintenance budgets have remained flat since 1994. As units that support the entire park, these areas should have grown somewhat to reflect inflation costs as well as to support commensurate increases elsewhere in staffing and work responsibilities.

Figure 3.4: ONPS Base Funding Expenditures by Division

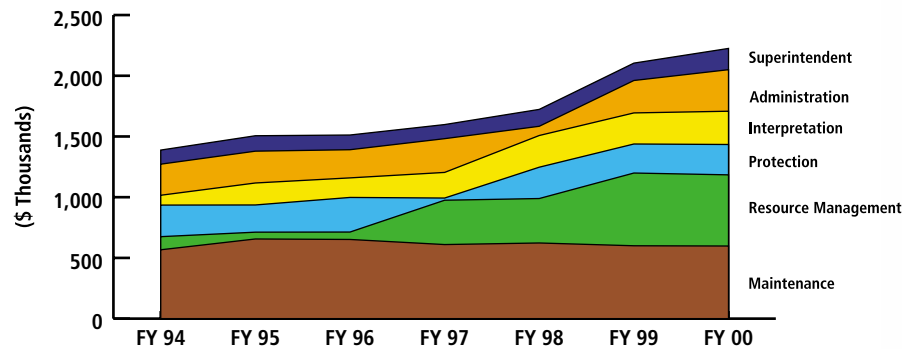
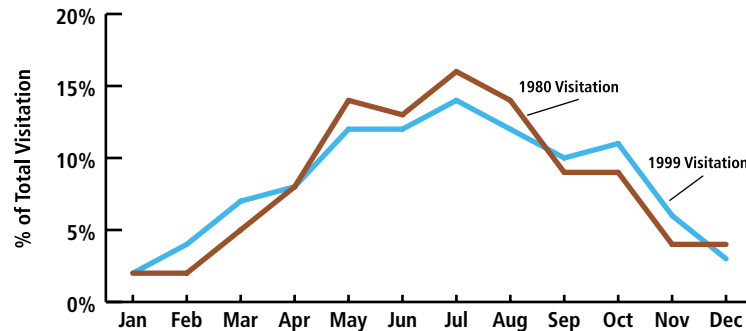
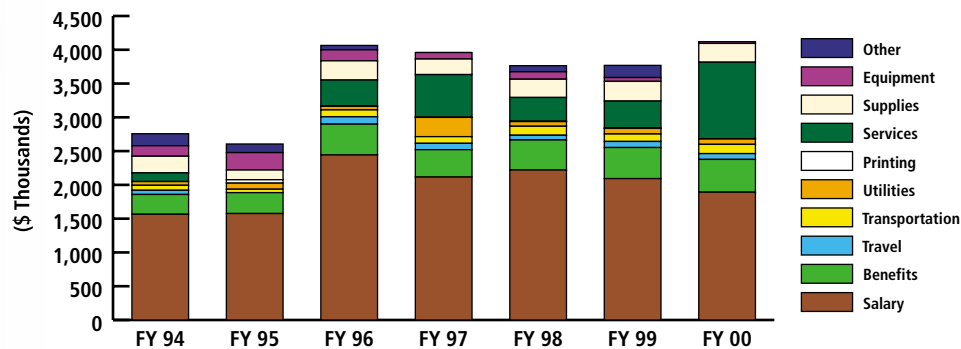


Figure 3.5: Seasonal Visitation Trends



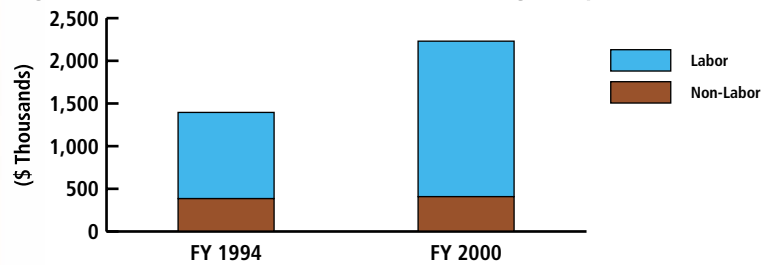
HISTORICAL FUNDING (continued)

Figure 3.6: Expenditure Comparison by Type



- The spike in Project funds in 1996 resulted from the Dome Fire (*see Figure 3.2*), which includes fire suppression efforts and subsequent burned area rehabilitation work. Funds decreased over time as post-fire work concluded.
- Figure 3.6 shows that expenditures on outside services were particularly high in 2000. This reflects large projects to repair historic buildings. Higher levels of funding will be needed in future years to stabilize the park's aging infrastructure.

Figure 3.7: Labor and Non-Labor Base Funding Comparison



Lower Falls in Frijoles Canyon.

3.2 VISITATION



Total visits to Bandelier have grown more than 50% since 1980 (*Figure 3.8*). However, since 1994, when park visitors peaked at 430,000, visitation has fallen on average 8% per year. Not surprisingly, the most notable decline occurred in 2000. The Cerro Grande fire began in May 2000 and shut down the park for almost a month during its peak season. Figures for 2001 (January through July) show a marked increase from 2000, indicating the fire is not likely to have a long term impact on park visits (*Figure 3.9*). The downward trend at Bandelier in the 1990s seems to reflect general visitation trends among Southwest Parks (see sidebar on next page for state and regional comparisons).

Some insight into Bandelier's decline include the following:

- Regional patterns of tourism have changed across the state – tourism in New Mexico also peaked in 1994 (*Figure 3.8*).
- Energy costs have likely had some impact on regional travelers.
- The strong American dollar may have deterred some foreign tourists and shifted American travelers to countries where the dollar has greater value.
- Declines occurred after the Dome Fire in 1996 and the Oso Fire in 1998 (which was outside the park but in the Jemez Mountains). Often, out-of-state visitors will avoid fire bound regions, and visitation can take years to recover.

Figure 3.8: Historic Visitation Trends

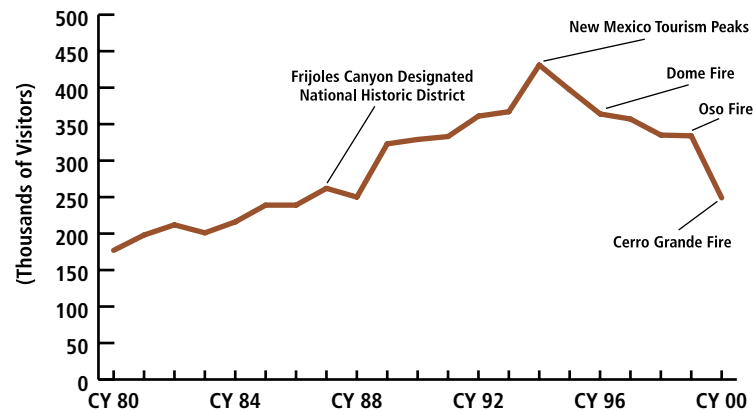
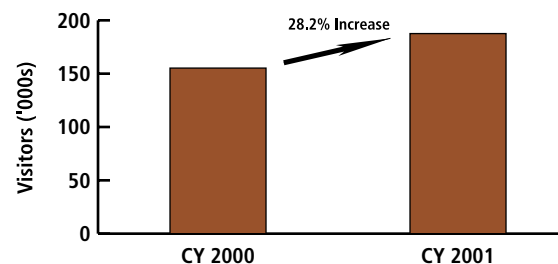
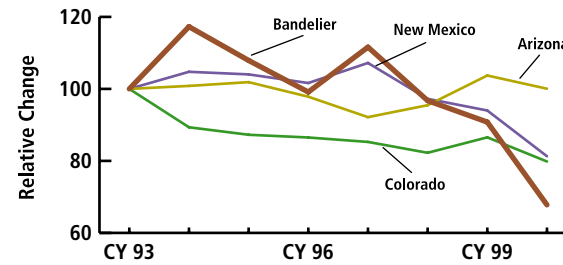


Figure 3.9: First 9 Months Comparison



VISITATION (continued)

Figure 3.10: Regional Park Visitation



¹ NPS park visitation by state excludes largest park in each state (Carlsbad, Grand Canyon, and Rocky Mountain)

Regional Visitation Trends

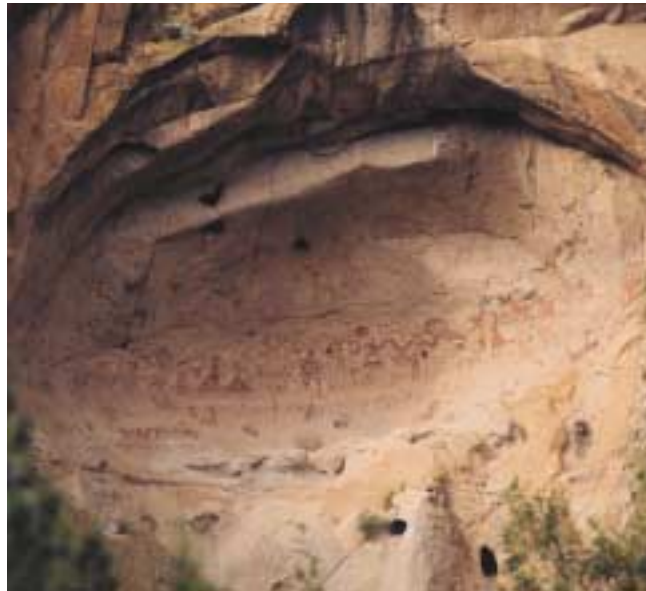
The Intermountain Region made up 15% of all US park visits in 2000. Visitation in the Intermountain Region, however, declined by 3.1% in 2000 (compared to 0.4% nationally). The declines at Bandelier seem to mirror those in both New Mexico and other states in the Southwest. Between 1993-2000, the number of park visitors fell in New Mexico by 19%, in Utah by 13%, and in Colorado by 21% (Figure 3.10).



A park interpreter demonstrates the use of a mano and metate during a walk through Tyuonyi pueblo.

FUNCTIONAL AREAS

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Pictographs in Painted Cave are easily seen by backcountry hikers.

*Where I come from is like this
The warmth, the fragrance, the silence
Blue sky and rain clouds in the distance
We ride together past cliffs with stories and songs
Painted on rock, 700 years ago.*

— Leslie Marmon Silko,
Slim Man Canyon

PARK CHRONOLOGY

1933

Civilian Conservation Corps establishes a work camp with some 300 laborers. Numerous pueblo-revival stone buildings are constructed between 1933-40, most of which remain today.

1939

Pablita Velarde begins her first job working at Bandelier drawing scenes for museum exhibits. She would later become a world-renowned artist. Bandelier has the largest collection of her earlier works.

1940s

Mrs. Frey's lodge is appropriated by the Manhattan Project to house scientists and workers at the secret laboratory in Los Alamos. Robert Oppenheimer himself spent time in the park during this period.

1960s

Department of Energy land from the rim of Frijoles canyon to S.R. 4 is added to Bandelier in exchange for the Otowi Unit.

1963

Visitation to Bandelier reaches the 100,000 mark

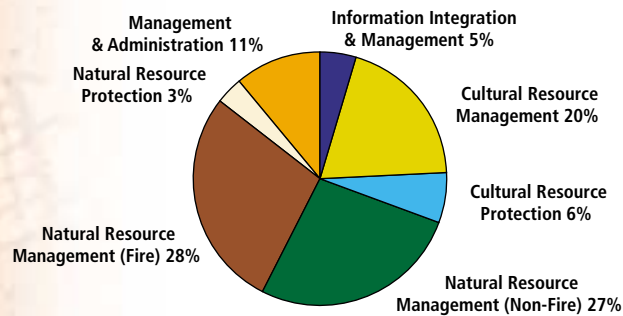
4.1 RESOURCE MANAGEMENT



Bandelier was designated a monument primarily for the ethnographic and scientific interest in resident ancestral Pueblo sites. However, the park is also home to a wilderness that possesses a wealth of ecological and biological value.

Additional staff will address research and data backlog issues. Further, a regional interagency curatorial facility, and associated storage and display space, will help Bandelier better manage and share its inventory of over two million archeological and historical objects.

Figure 4.1: Resource Management Funding by Program



	<i>FUNDING</i>	<i>FTE</i>
<i>Available in 2000</i>	<i>\$1,484,621</i>	<i>22.04</i>
<i>Shortfall</i>	<i>\$954,504</i>	<i>20.07</i>

CULTURAL RESOURCES

Bandelier's archeological treasures and its collection of CCC buildings and furnishings attract interest from around the globe. Cultural Resources staff maintain the park's historic and prehistoric resources for public enjoyment, further the understanding of how prehistoric and historic peoples interacted with their environment, and maintain an open, consultative relationship with Native American communities that have ancestral ties to the park.

A number of challenges and needs for this group were identified in this analysis. Given the extensive archeological assessment work underway, maintaining critical inventory databases is extremely difficult with limited staff and an inadequate information technology infrastructure. Further, the sheer volume of archeological sites at Bandelier creates an overwhelming workload.

NATURAL RESOURCES

The Natural Resources function aims to preserve, protect, restore, interpret, and manage park wilderness areas and natural ecosystems. Whether monitoring elk movements, studying butterfly populations, or mitigating accelerated erosion, staff enable park management to make sound science-based decisions. In conjunction with the US Geological Survey, Bandelier supports a highly advanced resource program, one that is remarkably developed for a park its size. However, challenges abound. The natural resource group relies heavily on special project money and limited horizon funding for ongoing data collection and resource monitoring efforts. Funding shortfalls result in inadequate lab space and staffing levels, which in turn make it difficult to fulfill Bandelier's research, resource management, and advisory commitments.

RESOURCE MANAGEMENT (continued)

The business plan process identified a number of needs, many related to staffing deficits. The addition of a skilled biological field team would support research and data collection efforts across the natural resources function. Similarly, hiring a physical scientist would enable the park to apply dedicated resources to study both hydrology and geology, areas critical for understanding and mitigating the threat posed to cultural resources by erosion and other natural processes.

FIRE PROGRAM

The third major component of Bandelier's resource management group is the fire program. Bandelier is home to a regional fire team which has responsibility for fire management in nearby New Mexico and Texas park units. A century of fire suppression has created a serious fuel build-up, resulting in hazardous conditions in and around Bandelier. The threat of wildfires in the area is ever present. Activities supported by the fire team include fire suppression, the productive use of fire as a tool to thin underbrush and restore natural processes within ecosystems, and research to better understand the role of fire in ecosystems and its role as a resource management tool.

The Cerro Grande fire in May 2000 clearly placed considerable stress on the fire program and the park as a whole (see sidebar). Beyond the difficulties posed by that fire, our analysis revealed a number of dis-



Prescribed fires have been used as an ecological management tool since 1980.

crete challenges. Given that fire management does not stop at park boundaries, the need for an interagency fire coordinator is pressing. In addition to new staff, construction of an interagency fire facility would enable Bandelier, the US Forest Service and the Department of Energy (DOE)/Los Alamos National Laboratory (LANL) to better synchronize fire management planning and actions, and reduce operating costs for all agencies.



Architectural conservator Angelyn Rivera preserves multi-layer earthen plasters in a cave.

The Cerro Grande Fire

In May 2000, the Cerro Grande fire burned over 47,000 acres along the eastern flank of the Jemez Mountains. Though it began as a prescribed burn to mitigate a dangerous fuel build-up in Bandelier, an unexpected weather change pushed the fire out of control. Some 400 families in neighboring Los Alamos lost their homes and 18,000 people were evacuated for more than a week. It was the largest and most destructive wildfire in New Mexico's history. The impact on Los Alamos was tremendous. The process of rebuilding homes and lives after the fire is difficult, and has only just begun.

Many changes have occurred in the aftermath of the Cerro Grande fire. The NPS has made aggressive efforts to ensure that weak policies are changed, that communications and coordination with other agencies are strengthened, and that training is improved and increased. While little can be done to erase the damage and suffering caused by the Cerro Grande fire, the NPS is working to ensure all parks are better prepared in the future.

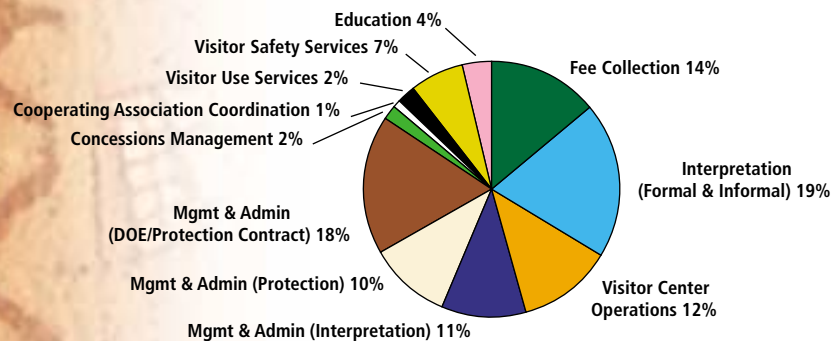
4.2 VISITOR EXPERIENCE AND ENJOYMENT



Each year, hundreds of thousands of people experience the powerful spirit that envelops Bandelier. There is no question that the park impresses visitors on its own but Staff also play a key role. They help people understand Bandelier's cultural and historical relevance as well as protect visitors and the diverse resources within park boundaries.

coverage is always problematic, and there are never more than two rangers on duty at any time. Regular training, vacations, unexpected side days, and lapsed positions create significant demands on a small staff resulting in considerable overtime as efforts are made to provide adequate coverage.

Figure 4.2: Visitor Experience & Enjoyment Funding by Program



	<i>FUNDING</i>	<i>FTE</i>
<i>Available in 2000</i>	<i>\$646,066</i>	<i>12.84</i>
<i>Shortfall</i>	<i>\$461,650</i>	<i>8.99</i>

PROTECTION

The other major component of this functional area is Protection. Relative to other parks its size, Bandelier has very few traditional law enforcement violations (theft, traffic, personal injury, etc.). Because of this, and because of the wealth of cultural and natural resources, resource protection has become a major component of ranger activity. At various points throughout the year, Bandelier had six Protection Rangers on staff. However, with 1.6 FTEs paid for and under contract to patrol neighboring DOE/LANL land, the park had just 2.19 FTEs of Protection Ranger time.

Protection struggles to run its program with a very small staff. Ranger

INTERPRETATION

Interpretation staff operate a visitor center, where backcountry permits are issued, cultural displays are offered, and park information is distributed. Staff also conduct school visits, provide educational programs,



A park fee collector greets a visitor and collects the \$10 entrance fee.

VISITOR EXPERIENCE and ENJOYMENT (continued)

run special events such as Night Walks and Campfire Talks, patrol frontcountry trails, and offer tours through the Tyuonyi loop trail.

The primary challenge Bandelier faces in running Interpretation programs is inadequate staffing. Due to insufficient staff, Bandelier's Interpretation program has been mostly limited to in-park services. The park has been unable to capitalize on the variety of media available to communicate with visitors and reach out to non-traditional audiences. Lack of funds for employee development and training has impeded integration with local school curricula and development of a dynamic park website.

Despite resource shortfalls, the Interpretation function is on the move. It has developed aggressive plans to expand programming and build stronger relationships with those who share a common interest in Bandelier. Not surprisingly, fiscal year 2000 analysis revealed shortfalls in the areas of visitor center operations and education. Also identified was the need for an interagency learning center (see sidebar).

Needs identified in the business plan process include additional protection staff, an expanded dispatch system, and a new intrusion and fire alarm system to replace the outdated equipment in use today. With the growth of the Valles Caldera National Preserve and an opening of the park's closed Cerro Grande Accession unit, Bandelier could experience increased visitation and even greater need for both Interpretation and Protection services.



Additional interpretive staffing will enable Bandelier to provide curriculum-based and stewardship programs to school groups in and around the park.

A Learning Center

Bandelier lies in the heart of a region filled with an abundance of natural and cultural significance. As such, the region attracts researchers from around the world to study the Jemez Mountains ecosystem, cultural resources and landscapes, history, and fire ecology. Bandelier is proposing to establish the Jemez Mountains Learning Center. The Center will coordinate research, facilitate the development of educational programs, ensure research results are disseminated, and foster collaboration among federal agencies, tribal governments, and local communities.

The Center will provide the critical link for connecting research and education, and will make it possible to apply the findings of research for the protection of resources within Bandelier and throughout the Jemez Mountains region.

Collaborating schools, universities, agencies, and organizations will be provided with office space, a laboratory, accommodations, and access to computer and geographic information systems. The Center will consist of a network of facilities located in and around Bandelier.

4.3 FACILITY OPERATIONS



Facility operations ensures that Bandelier's facilities run smoothly day-to-day. Staff clean and maintain office buildings, 22 on-site staff quarters and several visitor-use facilities. Some 3.6 miles of paved roads require inspections, minor repairs and periodic snow removal. Frontcountry trails, two campgrounds and one day-use picnic area are monitored and maintained regularly.

On their own, the size and scale of Bandelier's grounds, buildings and physical plant reveal little about the complexity of on-site operations management. While environmental and geographical realities impose various constraints, it is the park's cultural and historic context that engender unusual operating challenges.

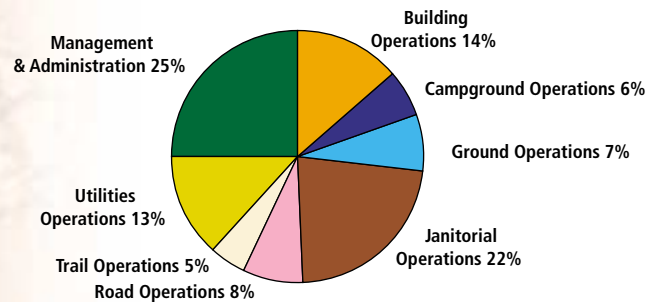
Bandelier is home to more than 2,000 known ancestral Pueblo sites and potentially thousands more. This culturally sensitive environment demands exceptional care in managing park grounds. In addition, Bandelier houses the largest collection of CCC buildings and fur-

nishings in the country (see sidebar). Today, these structures are used as a visitor center, administrative offices, a maintenance complex, a powerhouse, stables, and staff quarters. Roads, retaining walls, gutters, electrical systems, stone patios were also constructed during this time and require care that exceeds normal operating standards. For example,

- rigorous environmental and cultural resource management guidelines must be followed any time Bandelier needs to break ground;
- adapting historic buildings for office and residential purposes is problematic given guidelines that limit altering original design and use; and
- roads cannot be salted in the winter given the corrosive effects on masonry and the sensitivities of the Frijolito Watershed.

Thus, while providing a distinct visitor experience, cultural and historic issues challenge Bandelier staff to make the most of available resources. Fiscal year 2000 funding analysis revealed operating shortfalls throughout this functional area.

Figure 4.3: Facility Operations Funding by Program



Available in 2000	<i>FUNDING</i>	<i>FTE</i>
	\$469,597	6.84
Shortfall	\$368,123	6.27

FACILITY OPERATIONS (continued)

Notable deficiencies were in trails, roads, and janitorial services. The absence of a seasonal trails crew, a mason for historic buildings and infrastructure, and sufficient staff for general janitorial services has had a marked impact on structures and grounds. For example, Bandelier simply cannot afford to maintain historic gutters and retaining walls to standard. Further, building upkeep exceeding basic janitorial services is sporadic and compounds the stress placed on historic structures being used for housing and administrative purposes.



Building History

Bandelier is filled with a wealth of historic structures. Some 300 men worked at Bandelier between 1933-40 as part of President Roosevelt's Civilian Conservation Corps (CCC). They were put to work mending fences, building roads and trails, eradicating tent caterpillars, and constructing buildings.

Concentrating their efforts largely in Frijoles Canyon, CCC workers built a visitor center, a new guest lodge to replace George and Evelyn Frey's Lodge of the Ten Elders, a dining room, coffee shop, gift shop and staff quarters. The buildings were designed to harmonize with local culture and landscape. They followed an architectural style known as Pueblo revival using the same type of stone the Ancestral pueblo people used centuries earlier in Frijoles Canyon. From exterior walls to interior curtain rods, from tables and chairs to tin sconces and chandeliers, CCC craftsmen exercised great attention to detail. In recognition of their historical and cultural significance, the buildings and furnishings in the Canyon were designated a National Historic Landmark District in 1987.



Civilian Conservation Corps (CCC) workers build the Frijoles Canyon Lodge in the 1930s.

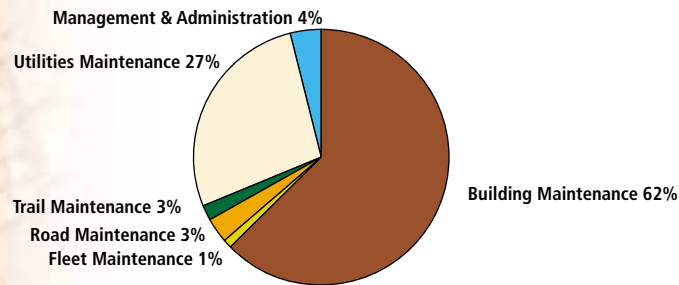
4.4 MAINTENANCE



Maintenance activities are performed solely to preserve and prolong the life of park assets and investments such as buildings, roads, trails, and equipment. This includes road and trail renovation, upgrades and repairs of water and sewage treatment facilities, basic maintenance of park vehicles and heavy equipment, and periodic structural work on park buildings.

drainage, patching potholes, crack sealing, hazard tree removal, cleaning road shoulders, and grading secondary gravel roads cannot be done on a regular basis. This raises both safety and historic structure preservation issues given the prevalence of CCC-era masonry gutters and retaining walls.

Figure 4.4: Maintenance Funding by Program



	<i>FUNDING</i>	<i>FTE</i>
<i>Available in 2000</i>	<i>\$1,057,241</i>	<i>4.62</i>
<i>Shortfall</i>	<i>\$349,083</i>	<i>3.97</i>

In recent years, the maintenance program at Bandelier has come under increasing pressure to manage the physical plant with a diminishing resource base. Many activities are not performed regularly and are attended to only when project dollars are secured. Some examples:

- It is not possible to conduct regular building maintenance in the absence of fee demo or other special project money. This poses obvious problems for all historical structures and puts a cultural resource at risk.
- Road maintenance is subject to the availability of annual project money. Accordingly, road



MAINTENANCE (continued)

Not surprisingly, our funding analysis revealed shortfalls across the maintenance function and highlighted prominent gaps in the areas of roads, trails (see sidebar), buildings, and management. A significant gap not already discussed is the need for a Facility Management Specialist. Among the tasks of this individual will be management of the new Facility Management Software System, supervision of contracts, and facility planning and design .



Stabilizing Backcountry Trails

All of Bandelier's backcountry trails require major stabilization work, signing and bridge reconstruction. Multiple segments require complete relocation due to poor site planning prior to initial construction during the 1930s. Siting problems relate to accelerated erosion in environmentally sensitive areas, and proximity to archeological sites (many of which are unsurveyed and therefore should not sustain human traffic).

Despite this great need, backcountry trails are not inspected or maintained according to operational standards. Further, there is no permanent trails crew at Bandelier. When work does occur, it is done primarily through the efforts of volunteer groups such as the Sierra Club, the Rocky Mountain Youth Corps, New Mexico Volunteers for the Outdoors, and Tuff Riders. While volunteer efforts are exemplary and should continue to be used, they are not enough. Funding is therefore needed for an ongoing trails crew and a significant investment in trail rehabilitation (see investment priorities on page 37).



4.5 MANAGEMENT AND ADMINISTRATION

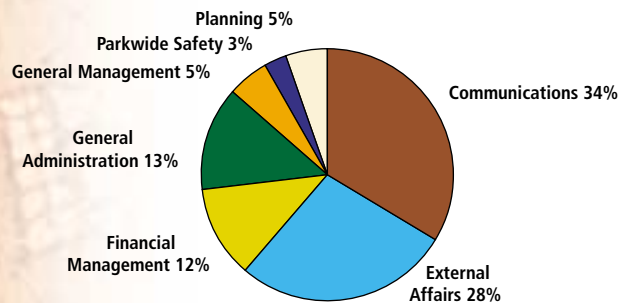


Supporting every facet of Bandelier's operation is the Management and Administration group.

Staff in this area direct numerous administrative functions to facilitate rewarding visitor experiences and the protection of park resources. Activities include budgeting and finance, procurement, human resources management, property management, strategic planning, and information technology.

- Bandelier's information technology network is struggling to keep pace with the needs of park staff. In the absence of predictable and increased funding, Bandelier cannot maintain an up-to-date inventory of hardware and software to support a wide range of activities, including maintenance management, geographical information systems, and the vast data entry and storage requirements of the resource management group.

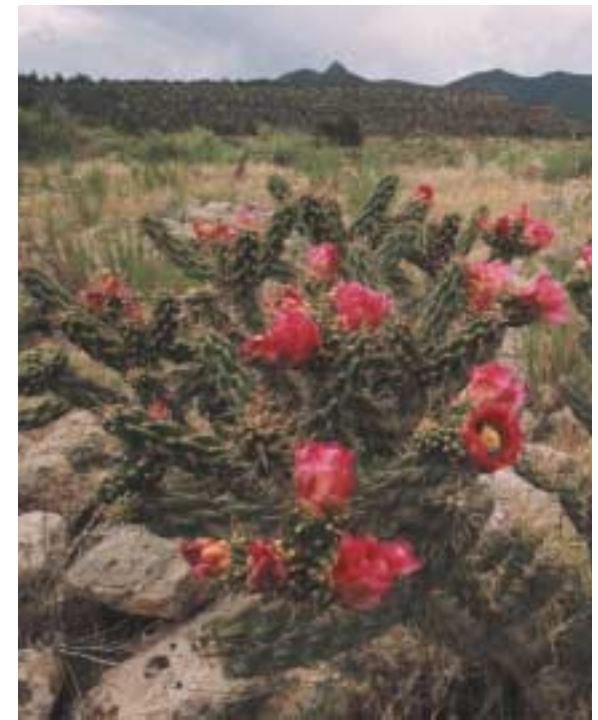
Figure 4.5: Parkwide Management & Administration Funding by Program



	<i>FUNDING</i>	<i>FTE</i>
<i>Available in 2000</i>	<i>\$487,270</i>	<i>7.91</i>
<i>Shortfall</i>	<i>\$632,403</i>	<i>7.66</i>

The business plan process revealed a number of challenges facing this unit, though two in particular explicitly characterize Bandelier's primary needs.

- Bandelier has run out of office space, and existing space is inadequate to support the diverse needs of park staff. Further, Bandelier's use of historic buildings for administrative purposes places unusual stress on fragile structures. No new buildings can be constructed in the Historic District and there is little opportunity to break new ground on the canyon mesa given archeological and environmental impact considerations.



Cholla in bloom.

MANAGEMENT AND ADMINISTRATION (continued)

Bandelier's Management and Administration budget has remained largely flat since 1994, and the group is struggling to cope with a much higher workload. In 2000, the group supported 125 permanent and seasonal employees, a 60% increase from 1994. In addition, the NPS reorganization and subsequent transfer of administrative responsibility to parks has only added to the workload pressures of this group.

Our funding analysis revealed gaps in most facets of this park function. In addition to those areas noted above, external affairs, general administration, and safety (see sidebar) require greater support as well. Bandelier cannot exist as an island and must do considerably more to build stronger relationships with a host of neighboring organizations, from Los Alamos County to the DOE/LANL to the US Forest Service. This work is happening, but is limited by a dearth of funding.



Safety First

A May 2001 audit by DuPont found that while Bandelier did an excellent job of managing visitor safety, it was experiencing too many employee injuries and lacked a robust safety management infrastructure. The park has therefore adopted the challenge of making a significant improvement in safety performance.

The DuPont audit identified actions to enhance workplace safety practices, including hiring a Safety Officer, establishing a Safety Leadership Council, and strengthening communication systems. Many of these recommendations involve a commitment of new dollars and people's time – time that is already fully utilized. More importantly, they require a culture shift and leadership across the park. Bandelier has embraced the recommendations, but will need additional funding to realize its goals of reducing on-site injuries and enhancing the safety management culture generally.

PARK CHRONOLOGY

1976

Congress designates 23,267 acres of land at Bandelier (over two thirds of the park) as "Wilderness."

1977

La Mesa Fire burns over 15,000 acres, including 10,000 acres in the park.

1977

Upper Frijoles area, known as the Cerro Grande Accession, is purchased from the Baca Land and Cattle Co. for the purpose of protecting the ecologically important Frijoles Creek watershed.

1986

A colony of 10,000 bats move into a vertical cave located above the "Long House" Pueblo settlement and one slightly further up Frijoles Canyon. They continue to return yearly.

1986

The first comprehensive archeological survey of Bandelier begins. Today, some 40% of the park remains unsurveyed.



The Jemez Mountains are criss-crossed with ancient trails such as the ones seen at Tsankawi.

*Above the mountains mist-dancers rise in
luminous clouds, leaping gracefully
Ever so slowly into the moonlit sky.
The night promises good tomorrows.
The Moon is singing to her husband,
who sleeps in the dark mountain.
He will rise in the morning,
strong and bright, but for now
The mighty golden Sun dreams as we do,
and the moon watches over us all.*

— Unknown

FINANCIAL ANALYSIS

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5.2 Summary Financial Statement p. 30

5.3 Financial Analysis p. 32

5.1 FINANCIAL OVERVIEW



Bandelier operates within the constraints posed by programs and legal responsibilities that are growing faster than the funding to support them. As such, the park is constantly challenged to balance the needs of resources, visitors, and infrastructure support. Growth in one program is usually directly or indirectly at the expense of another. Bandelier has a history of replacing lapsed positions with new positions of greater need, and when funding is secured for a new position, it generally comes without full administrative and facility support. The resulting tension suggests Bandelier may be overextended; yet the park has little alternative as it seeks to make the most of available resources in order to meet legislative mandates and as many operational standards as possible.

THE BIG PICTURE

	Funding (\$ 000s)	FTE
Total Required	6,911	101.22
Fiscal 2000 Available	4,145	54.26
Fiscal 2001 Increases	288	—
Total Shortfall	2,478	46.96

HIGHLIGHTS

- Bandelier has a solid track record of financial management. However, resource limitations create difficulties meeting legislated mandates.
- Unfunded need represents 36% of total required budget.
- 80% of park's \$2.5 million shortfall is required to fund labor needs.
- Fiscal 2000 base funding only covers 33% of park's total required funding
- Bandelier has unusually high reliance on non-recurring project dollars.

PERFORMANCE MANAGEMENT - FIGURE 5.1

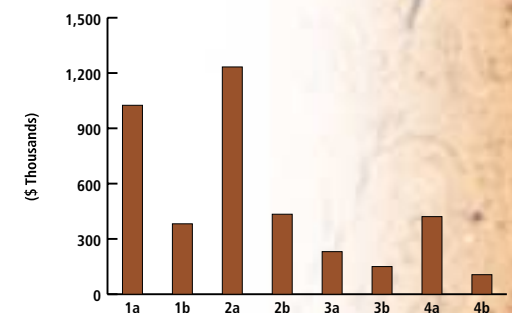
The 1993 Government Results and Performance Act (GPRA) directs federal agencies to use performance management as a tool for greater effectiveness and efficiency. Bandelier, like all parks, has embraced the spirit and practice of managing for results. Focusing on outcomes drives performance in every aspect of park operations.

GPRA goals for parks are divided into four main categories with two subsections in each:

- 1a Protect, restore and maintain natural and cultural resources
1b Contribute knowledge about natural and cultural resources
- 2a Visitors safely enjoy park facilities
2b Visitors understand park preservation efforts
- 3a Natural and cultural resources conserved through partnerships
3b Partnerships enhance education, recreation, and conservation benefits
- 4a Current management practices and technologies help park achieve mission
4b Support from other organizations and individuals increase park resources

The graph shows the focus of Bandelier's activity lies primarily in preserving park resources (Goal 1a) and visitor experience (Goals 2a and 2b). This is not surprising, given both Bandelier's natural and cultural resource bounty and the amount of work required to sustain the park's historic and aging infrastructure.

Figure 5.1: Fiscal 2000 Available Funding by GPRA Goal



5.2 SUMMARY FINANCIAL STATEMENT

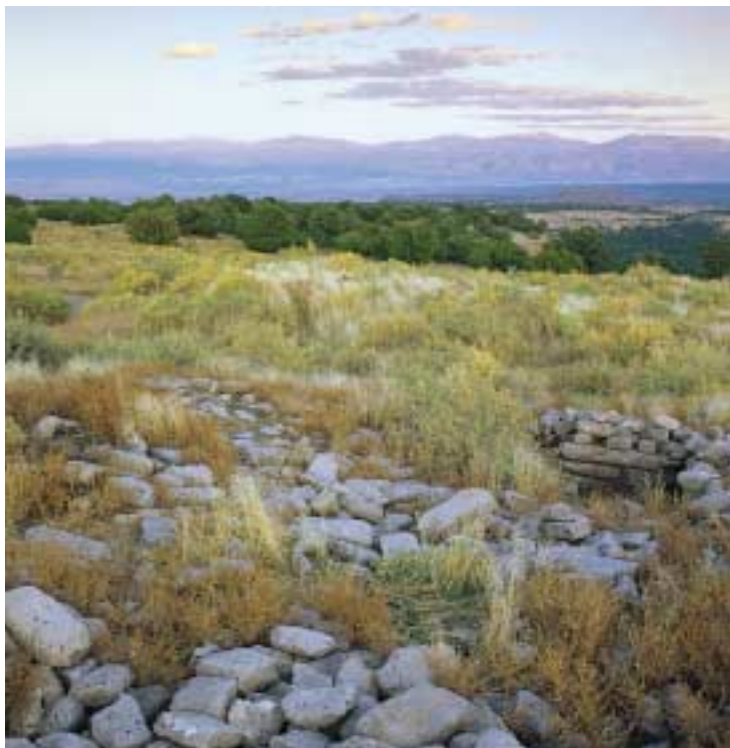
The summary financial statement below provides a detailed description of Bandelier's operating and maintenance budget for fiscal year 2000 by functional area and the 36 Business Plan top-level programs. The table shows available staffing and funding levels, total requirements, and highlights the operating shortfall as identified by program managers.

Program	Available Fiscal Year 2000 Resources						Unfunded Need		Total Required Resources			
	FTE Available	ONPS Base	Appropriated Non Base	Reimbursable	Revenue	Total	FTE	Dollars	Personnel (FTE)	Personnel (\$)	Non Personnel	Total
Resource Management												
Information Integration & Management	1.41	67,659	-	490	-	68,149	0.09	16,749	1.50	73,992	10,907	84,898
Cultural Resource Management	7.28	323,593	16,255	-	46,622	386,470	3.74	233,832	11.02	526,146	94,155	620,301
Natural Resource Management	11.17	238,699	548,243	57,465	21,977	866,385	13.58	533,239	24.75	1,075,319	324,305	1,399,623
Management & Administration	2.19	118,816	7,748	26,333	10,720	163,618	2.66	170,684	4.85	273,822	60,480	334,302
Subtotal	22.04	748,768	572,246	84,288	79,319	1,484,621	20.07	954,504	42.11	1,949,278	489,846	2,439,125
Visitor Experience & Enjoyment												
Concessions Management	0.06	3,411	-	7,873	478	11,762	0.16	12,395	0.22	15,807	8,351	24,157
Cooperating Association Coordination	0.10	6,326	-	-	-	6,326	0.55	20,283	0.65	26,249	360	26,609
Education	0.24	14,120	-	-	9,872	23,992	1.76	100,296	2.00	102,314	21,974	124,288
Fee Collection	2.43	6,102	-	-	83,897	89,999	1.83	95,681	4.26	165,697	19,983	185,681
Interpretation	2.89	104,101	-	-	23,314	127,415	2.11	122,866	5.00	208,473	41,807	250,281
Visitor Center Operations	2.24	77,588	-	-	-	77,588	1.56	44,394	3.80	121,776	206	121,982
Visitor Safety Services	0.81	44,093	-	-	-	44,093	1.37	89,385	2.18	102,964	30,514	133,478
Visitor Use Services	0.49	11,102	738	-	3,166	15,006	(0.04)	485	0.45	14,973	518	15,491
Management & Administration	3.58	118,970	4,804	113,482	12,630	249,886	(0.31)	(24,135)	3.27	177,147	48,603	225,750
Subtotal	12.84	385,813	5,542	121,355	133,356	646,066	8.99	461,650	21.83	935,401	172,316	1,107,717
Facility Operations												
Building Operations	0.62	38,665	-	-	25,114	63,780	0.45	46,521	1.07	54,389	55,912	110,301
Campground Operations	0.58	26,472	-	-	1,705	28,176	0.07	7,421	0.65	26,650	8,947	35,597
Ground Operations	0.50	34,043	-	-	-	34,043	1.50	72,478	2.00	85,172	21,349	106,521
Janitorial Operations	2.04	98,836	6,800	-	-	105,636	0.95	43,633	2.99	109,777	39,493	149,270
Road Operations	0.45	36,192	-	-	-	36,192	0.90	50,148	1.35	69,170	17,170	86,341
Trail Operations	0.25	22,098	-	-	-	22,098	1.15	44,064	1.40	48,687	17,475	66,162
Utilities Operations	0.30	62,312	-	-	-	62,312	1.15	61,376	1.45	75,357	48,332	123,689
Management & Administration	2.10	117,359	-	-	-	117,359	0.10	42,482	2.20	148,311	11,530	159,841
Subtotal	6.84	435,978	6,800	-	26,819	469,597	6.27	368,123	13.11	617,513	220,207	837,720
Maintenance												
Building Maintenance	2.09	38,090	143,031	-	475,500	656,621	(0.01)	35,045	2.08	90,098	601,569	691,667
Fleet Maintenance	0.20	11,574	-	-	-	11,574	-	80,830	0.20	10,678	81,726	92,404
Road Maintenance	0.45	33,169	-	-	-	33,169	1.70	99,533	2.15	117,959	14,743	132,703
Trail Maintenance	0.38	27,119	-	-	1,089	28,208	0.92	42,573	1.30	50,073	20,708	70,781
Utilities Maintenance	0.85	24,152	242,134	-	20,217	286,503	0.31	24,166	1.17	38,526	272,142	310,668
Management & Administration	0.65	41,166	-	-	-	41,166	1.05	66,936	1.70	100,536	7,566	108,102
Subtotal	4.62	175,271	385,165	-	496,805	1,057,241	3.97	349,083	8.60	407,870	998,454	1,406,324

SUMMARY FINANCIAL STATEMENT (continued)

Program	Available Fiscal Year 2000 Resources						Unfunded Need		Total Required Resources			
	FTE Available	ONPS Base	Appropriated Non Base	Reimbursable	Revenue	Total	FTE	Dollars	Personnel (FTE)	Personnel (\$)	Non Personnel	Total
Management & Administration												
Communications	1.10	160,754	3,000	-	-	163,754	2.56	211,947	3.66	180,445	195,256	375,701
External Affairs	1.90	105,686	11,676	-	17,587	134,948	1.85	190,145	3.75	279,945	45,148	325,093
Financial Management	1.17	57,593	-	-	-	57,593	0.53	15,016	1.70	71,581	1,028	72,609
General Administration	1.17	47,123	17,774	-	-	64,896	0.51	42,740	1.68	84,962	22,674	107,636
General Management	2.12	67,554	(40,163)	(795)	(668)	25,928	1.01	68,361	3.13	206,829	(112,539)	94,289
Parkwide Safety	0.16	14,027	-	-	-	14,027	1.08	81,599	1.24	83,304	12,323	95,627
Planning	0.29	26,123	-	-	-	26,123	0.12	22,595	0.41	43,661	5,056	48,718
Subtotal	7.91	478,859	(7,714)	(795)	16,919	487,270	7.66	632,403	15.57	950,727	168,945	1,119,672
Total	54.26	2,224,689	962,039	204,849	753,217	4,144,795	46.96	2,765,763	101.22	4,860,789	2,049,769	6,910,558
FY 2001 ONPS Base Increases								73,000				
FY 2001 FirePro Increases								215,257				
FY 2001 Shortfall							46.96	2,477,507				

Yapashi is one of over 2000 ancestral Pueblo sites located in the Bandelier backcountry.



Financial Summary Footnotes:

1. This financial statement has been prepared from the books and records of the National Park Service in accordance with NPS accounting policies. The resources available reflect the total operations and maintenance costs incurred by the park during fiscal year 2000. The resources required are intended to represent the funding needed to operate the park while fully meeting legislated and park defined operational standards. Program requirements are presented as a 5-year planning tool based on fiscal year 2001 salary & wage tables; inflating non-labor operating costs using the Congressional Budget Office's fiscal year 2001 inflation estimate of 2.8%; and the park resource inventories and infrastructure as of August 2001. Changes resulting from one-time projects and capital improvements (e.g., investments) will have a resulting impact on the operational requirements presented.

2. All Fiscal Year 2000 figures are stated proforma to exclude approximately \$13.6 million in costs and transfers associated with wildfire suppression, including the Cerro Grande Fire (May 2000), and follow on burned area restoration efforts.

3. One Full-Time Equivalent (FTE) is equal to 2080 work hours annually, or the equivalent of one person working 40 hours per week for 52 weeks per year.

4. Bandelier's organizational structure does not perfectly fit the template established by the BPI process.

While some alignments are intuitive, others require explanation:

- both Interpretation and Protection Management and Administration are placed under "Visitor Experience & Enjoyment," although the Protection division spends time in a number of BPI categories, including Resource Management, Facility Operations, and Management & Administration.
- the Business Plan separates the Maintenance division into the categories of "Facility Operations" and "Maintenance;"
- Bandelier's Fire Program, while a distinct division, is placed under the "Resource Management" category for BPI purposes.

5.3 FINANCIAL ANALYSIS



FUNDING BY PROGRAM AREA

Total Park funding in fiscal 2000 was in excess of \$17.7 million, most of which went towards emergency suppression of the Cerro Grande fire and burned area stabilization and rehabilitation in the nearby Los Alamos area. In an effort to provide a more "normal" picture of available funds and needs, the financial summary excludes these and other wildfire costs. When these funds are backed out, Bandelier spent \$4.1 million to fund park operations and maintenance (*Figure 5.2*). Maintenance and Facility Operations combined received the largest share of funds at 37%, yet were below the 50% to 60% level typically found in other parks. Resource Management, with 35% of total funds, places the relative size of Bandelier's program at the high end of its peers. Given the development of Bandelier's resource program and the magnitude of resources to manage and protect, its size is not surprising. However, these same resources place a disproportionately large compliance and operational burden on the aforementioned Maintenance and Facility Operations areas.

FUNDING AND STAFFING NEEDS

After adjusting for incremental Fiscal Year 2001 base funding and a near doubling of the Fire Program since the close of Fiscal 2000, Bandelier's unmet operational funding need of nearly \$2.5 million represents a 36% shortfall in the total required budget of \$6.9 million.

By Functional Area (*Figure 5.3*), the greatest proportional unmet need is in Management & Administration with a 56% funding shortfall. In contrast, Maintenance has the smallest relative unmet need at 25%. However, it should be noted that Bandelier currently lacks the infrastructure to support the size of operation it needs. Depending on how the infrastructure build out unfolds, such as the location, size, personnel, and cost sharing agreements behind needed interagency fire, curation, and administration facilities, Bandelier's total needs may well increase. Resource Management has the largest absolute need, falling short of requirements by \$955,000. It should be noted that Fire Program funding increases in 2001 cover \$213,000 of this.

Figure 5.2: Park Funding by Functional Area

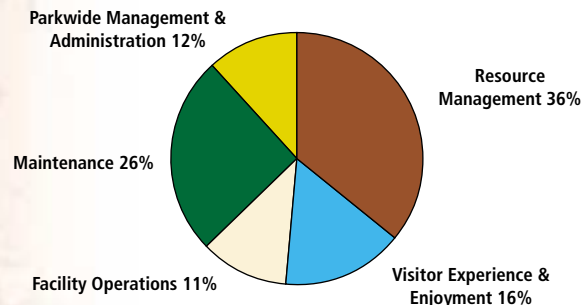
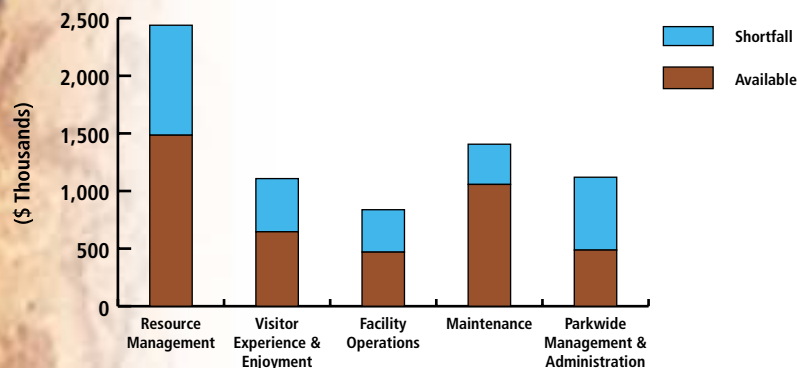


Figure 5.3: Fiscal 2000 Funding Availability and Shortfall by Area



FINANCIAL ANALYSIS (continued)

Of the \$2.5 million total shortfall, more than 80% or \$2.0 million is needed for additional personnel. To meet its full staffing target, the park must hire nearly 47 FTEs. The greatest proportional need is also in Management & Administration at 49%, representing a doubling of the existing eight available FTEs. Visitor Experience & Enjoyment has the smallest relative need with a shortfall of 42%, a net increase of nine FTEs over the 13 available. Resource Management reflects the largest absolute need, requiring 20 new FTEs, including approximately nine Fire and two and a half Protection FTEs. Again, most of the Fire FTEs have already been funded in the Fiscal Year 2001 Fire Program.

FUND SOURCE ANALYSIS

Figure 5.5 highlights Bandelier's reliance upon non-recurring project funds and revenues as a pilot in the Fee Demo Program. In total, non-recurring funding sources comprised 46% of Bandelier's existing budget. Historically, Bandelier has had a solid track record of securing needed project funds given the strength of its proposals, clear expense tracking, and prompt return of unusable

funds. The park feels additional project funding could become available; however, facility constraints and inadequate staff make additional projects difficult, if not impossible, to execute.

Figure 5.4: FTE Availability and Shortfall by Functional Area

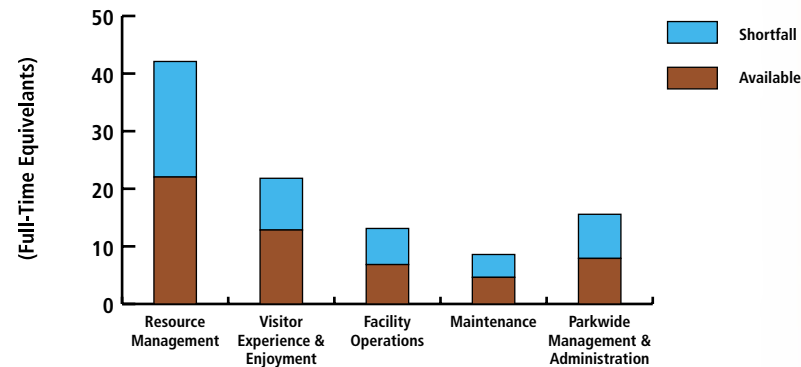
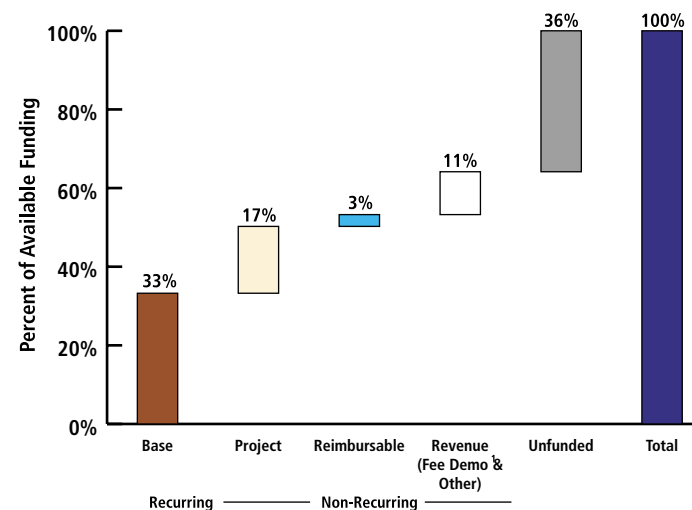


Figure 5.5: Fiscal 2000 Fund Source Analysis



¹ Fiscal Year 2000 Fee Demo revenue to the park totaled \$459,816. However, including funds carried over from prior years, a total of \$627,401 was spent from Fee Demo accounts.

PARK CHRONOLOGY

1987

The CCC structures located in Frijoles Canyon are designated as a National Historic Landmark in recognition of their historic value.

LATE 1980s, 1990s

Increased sensitivity to Pueblo peoples and their relationship to the park is integrated into park management practices. Includes consultation and recognition/protection of ethnographic values, religious practices and traditional uses.

1996

The Dome Fire burns 16,500 acres of land, 4,750 acres in the park. Much of Bandelier's backcountry is closed for almost two years.

2000

A park-initiated prescribed burn grows out of control. The Cerro Grande wildfire burns 47,600 acres, including 880 acres in the park itself.

2000

The Alamo watershed (823 acres) is added to Bandelier through the creation of the Valles Caldera National Preserve.



Tyonyi offers visitors a glimpse into ancestral Pueblo life.

*At night when our villages are silent and you think
them deserted,*

They will throng

With returning hosts

*That once filled and still love this
beautiful land.*

— Chief Seathl,
from Yellowstone Country
by Richard Phillips

STRATEGIC PRIORITIES

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6.3 Looking Ahead p. 39

6.1 KEY CHALLENGES



The preceding financial analysis identified operating challenges and funding needs across Bandelier's program.

This section will summarize those challenges and articulate opportunities to help position the park to realize its full potential.

CHALLENGES

An Aging and Inadequate Infrastructure. Bandelier has a uniquely historical physical plant because of the historical CCC District. It makes for a rewarding visitor experience but poses a significant management burden. Maintaining buildings, roads, information technology, and utility systems cannot be done with existing people and dollars.

The Need to Collaborate. The park's political boundaries ignore the natural rhythms and integration of the landscape and humanscape. Bandelier is only one player in a region with a host of important stakeholders. As such, it must increasingly focus efforts outside the park, to work with others who share an interest in Bandelier and communicate the importance of the park to a host of audiences.

The Cultural Resource Conundrum. Bandelier has one of the highest concentrations of caves in the world and its collection of CCC-era buildings is the largest and most distinctive anywhere. Managing these cultural resources imposes additional time and cost constraints on Bandelier, from compliance issues to limitations of use.

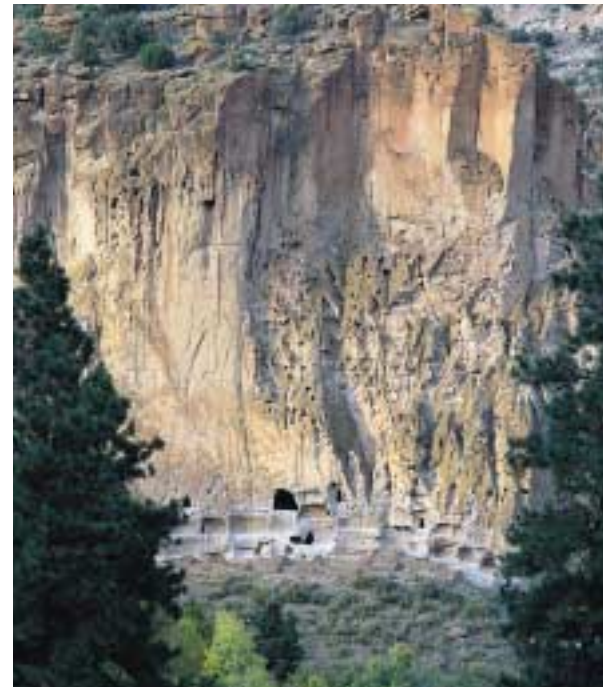
The Wilderness Management Dilemma. With 70% of the park designated a Wilderness Area, the tools for wilderness management must be compatible with the park's mandate to protect cultural resources. Unless park managers intervene, the park could suffer wholesale loss of mesa top soils, thousands of archeological sites, conifer forests, and the park's ancient meadows. Balancing wilderness integrity with the minimum-tool wilderness ethic poses a significant challenge.

Park Foundation Cannot be Ignored. The BPI process revealed considerable pressure on park support functions such as janitorial services, safety, human resources, and information technology. Expanding the park's program scope and reach must consider the impact on these

foundation areas that service all divisions.

The Need to Meet Expectations. For a park its size, Bandelier is home to a wealth of natural significance. From its world renowned fire ecology to its archeological riches, Bandelier has a responsibility to protect, manage, and educate people about its resources. Bandelier has done well in recent years to respond to this challenge. But as expectations grow, resources must follow to help program managers fulfill their conservation and education requirements.

When Adolph Bandelier first viewed Frijoles Canyon in 1880, he described it as the "grandest thing I ever saw."





Bandelier National Monument has the largest collection of Pablita Velarde's earliest works. Pictured here is the painting "Dance of the Patron Saints."

6.2 MANAGEMENT PRIORITIES



Bandelier can meet the challenges outlined earlier. Management has identified three strategic areas where a combination of capital investments, operational funding increases, and new thinking can drive the park to a higher, more robust level of activity. The projects noted below are drawn from the NPS Project Management Information System (PMIS) database, where more detailed information on cost and justification can be found. Operational funding increases relate to ongoing base budget

items, that is those things that form the basic Congressional appropriation for park operations. Much, but not all, of this funding information has been advanced via the NPS Operating Formulation System (OFS) process. Again, the OFS database contains more descriptive background detail.

MANAGE AND PROTECT RESOURCES

This business plan has talked at length about Bandelier cultural and natural resource values. Challenges identified on previous pages articulated the complexities all managers face in operating their programs, whether trails maintenance, curation, or wildlife management. Fulfilling the park's mission will not become easier over time, for there will always be new obstacles and issues. Management dilemmas and conundrums can be addressed in part by those items noted in the adjacent table.

Funding Type	Description	Cost	FTE	Year
Capital Investment	IMPLEMENT WILDERNESS MANAGEMENT PLAN Critical park resource and visitor management issues need to be addressed in a comprehensive manner through a programmatic Wilderness Management Plan. While funds to conduct such a Plan have already been secured, no resources are currently earmarked for implementation. Funding will be needed to change management practices, conduct targeted research, and initiate restorative projects.	\$2,500,000	--	2004
	STABILIZE AND REHABILITATE BACKCOUNTRY TRAILS Trail conditions have caused visitor injuries and accelerated erosion and environmental damage to sensitive areas. A major investment is required to rehabilitate and in some cases completely rebuild and re-site backcountry trails.	\$315,392	--	2002
Operational Needs	• Hire Trails Crew	\$52,544	1.20	2003
	• Hire multidisciplinary Biology/Ecology Team	\$172,000	4.48	2003
	• Hire Physical Scientist for hydrology/geology management support	\$63,000	1.00	2003
	• Hire environmental & cultural management Planning Compliance Team	\$84,000	1.50	2003
	• Hire additional protection rangers ¹	\$182,774	3.06	2003

¹ This does not include the need for 1.12 additional Protection Rangers in the area of visitor safety.

COLLABORATE AND COMMUNICATE

Discussed at length throughout this plan was the need for a greater external orientation and the need to form stronger partnerships with a host of neighboring agencies, organizations and individuals. While the priorities below relate to key items reflected in this plan, Bandelier recognizes these items are only part of the solution. The park is committed to expanding relationships with others to achieve many different goals. Some examples:

- Work with the Friends of Bandelier (FOB) and the National Park Foundation to increase non-government revenues to the park. Ensure the FOB continues to thrive by growing membership and enhancing its fund-raising activities.
- Bandelier needs to reinforce its value with its neighbors. In addition to those initiatives identified in the adjacent table, Bandelier should work with area organizations to develop a regional trails system, a learning center, an inter-agency visitor center, and a shared

curatorial facility. These will strengthen management and planning efforts, broaden Bandelier's reach, and help reduce costs for all those involved.



This reconstruction, known as Talus House, provides visitors with a better understanding of the structures that once stood throughout Frijoles Canyon.

Funding Type	Description	Cost	FTE	Year
Capital Investment	RELOCATE EXISTING OFFICE SPACE The existing infrastructure at Bandelier can no longer support the administrative needs of park operations. Bandelier hopes to capture efficiencies by co-locating offices outside the park with the US Forest Service and the Valles Caldera National Preserve. Collaboration will facilitate greater interagency cooperation, minimize environmental and cultural stress on park resources, improve service to visitors, and reduce operating expenses.	\$315,392 ¹	--	2002
	ESTABLISH INTERAGENCY FIRE FACILITY An interagency fire base is a key component of fire management efficiency. Bandelier and its regional partners, the DOE/LANL and the US Forest Service, will establish such a facility to address many of the organizational and operating deficiencies identified in the Cerro Grande Fire reviews. It will also address the inadequate nature of Bandelier's existing facility and will reduce overhead costs for all agencies.	\$2,000,000 ²	--	2002-05
Operational Needs	• Fund new Learning Center	\$225,000	2.00	2003
	• Improve park publications	\$63,000	1.00	2003

¹ While this initiative includes some one time relocations costs, the majority are recurring costs to cover lease payments.

² This is an estimated total cost. It is anticipated multiple agencies can and will provide funds for this initiative.



Elk in the Valles Caldera National Preserve at sunrise.

STRENGTHEN HUMAN AND CAPITAL INFRASTRUCTURE

Bandelier can and must do more to secure its foundation, whether it is people or structures. Investments noted below speak directly to the infrastructure and parkwide support challenges identified earlier. In addition to the proposals listed below, the park must consider other human capital issues:

- Bandelier's recruitment and retention strategies should be reviewed to ensure staffing needs do not go

unmet. This includes evaluating such things as cost of living adjustments, employee housing, and job design/evaluation.

- Bandelier's commitment to employee development should be constantly evaluated to ensure appropriate opportunities are made available and taken advantage of. Training budgets, mentoring programs, and other leadership activity must reflect the needs of employees, divisions, and the park as a whole.
- Bandelier's performance management systems can be strengthened by more closely aligning employee work plans with organizational goals and ensuring performance reviews and feedback are given regularly.

Funding Type	Description	Cost	FTE	Year
Capital Investment	<u>CONSTRUCT NEW MAINTENANCE FACILITY</u> Bandelier needs to remove its maintenance operations from the Historic District and construct a new facility on the existing maintenance storage grounds site on Frijoles Mesa. The facility must be relocated and expanded to deal with safety, environmental, and cultural issues.	\$2,733,913	--	2002-04
	<u>STABILIZE HISTORIC DISTRICT</u> Stabilizing CCC buildings and furnishings is paramount to preserving Bandelier's unique character. Priorities include: a condition assessment to guide future management; major structural rehabilitation; and replacing the out-of-date fire alarm and intrusion system.	\$1,131,598	--	2002-04
Operational Needs	• Hire Parkwide Safety Officer	\$63,000	1.00	2003
	• Hire IT staff & establish IT equipment replacement program	\$120,000	0.07	2003
	• Establish maintenance equipment replacement program	\$70,000	--	2003

6.3 LOOKING AHEAD



Much is in transition for Bandelier National Monument in 2001. A largely new management team is setting new directions. The park has a much greater external orientation and a desire to collaborate with area neighbors to achieve seamless resource management. The park is updating its Development Concept Plan and will complete a comprehensive wilderness management plan over the next several years. Finally, the future openings of the Valles Caldera

National Preserve (see sidebar) and Cerro Grande Accession unit pose a host of opportunities for Bandelier and other regional land management agencies. Underlying these exciting opportunities are challenges, from natural processes such as fire and erosion, to operating in a high cost area, and to funding constraints impacting park infrastructure, programs, and staffing. However, Bandelier is committed to excellence as it meets these challenges in protecting and sharing its piece of the American legacy.

The view across the Valles Grande in the newly established Valles Caldera National Preserve shows only a fraction of the beauty found within its borders.



The Valles Caldera National Preserve

In July 2000, Congress designated almost 90,000 acres of land, previously the private Baca Ranch, as the Valles Caldera National Preserve. Bordering the northwest section of Bandelier, the Preserve is one of the United State's greatest volcanic features. It is also home to a wide range of scenic, wildlife, cultural, and ecological resources, and provides astonishing aesthetic beauty and recreational potential. At the time the Preserve was created, Congress agreed to transfer 823 acres of the former ranch to Bandelier.

Congress created a distinctive management structure for the Caldera. A diverse Board of Trustees, which includes Bandelier's Superintendent, will make decisions about the Preserve. The Board will make resource protection a top priority. It will, however, also vigorously pursue policies that foster sustainable multiple land use and financial self-sufficiency as it develops the Preserve's management infrastructure in the next few years. The Caldera's importance to Bandelier and other federal land management is tremendous, given its central location and importance to the area's flora and fauna.

GLOSSARY

Appropriated Non-Base (or Project) Funding – Those funds authorized by Congress to support fixed-term projects for a variety of park activities (including, but not limited to, construction, research, and education).

Appropriation – Funding authorized by Congress enabling the government to operate during a given fiscal year.

Base Funding – Those funds authorized by Congress to support basic and ongoing park operations. It does not include funds to support one-time or limited-horizon projects and investments.

Business Plan – Concise document that presents financial and strategic information for a business to its stakeholders, constituents, stockholders, and customers.

Department of Energy/Los Alamos National Laboratory (DOE/LANL) – Los Alamos National Laboratory was established in 1943 as Project Y of the Manhattan Engineering District. Under the leadership of J. Robert Oppenheimer, the Laboratory developed the world's first atomic bomb. Today, Los Alamos is a multidisciplinary, multiprogram laboratory whose central mission still revolves around national security.

Facility Operations – Facility operations include all activities required to manage and operate the park's infrastructure and its services on a daily basis for visitors and staff. This functional area does not include maintenance activities

on the park's capital assets. Activities include only those actions that must be undertaken on a regular basis to ensure smooth operation of park facilities and transportation routes.

Recreation Fee Demonstration Program (Fee Demo) – A Congressionally authorized program to test entrance and user fee reinvestment, to maintain and improve the natural resource, recreation facilities, and services at the point of collection and agency collecting the fees. Previously, all fees were turned over to the US Treasury.

Fiscal Year – The Federal Government and National Park Service operate on a September fiscal year, a 12-month budgetary cycle ending in September. For example, Fiscal Year 2000 reflects appropriations and expenditures taking place between October 1, 1999 and September 30, 2000.

Full Time Equivalent (FTE) – A measure of work effort, reflecting the equivalent of one or more individuals working 2080 hours per year (40 hours per week, 52 weeks per year).

Functional Area – The highest level of a park's operations. Includes resource management, visitor experience and enjoyment, facility operations, maintenance, and management and administration.

Fund Source – While the majority of park funding stems from Congressional appropriations, those appropriations are subdivided into over a dozen separate fund sources for the NPS. Some are competitive while others are line items in

the budget. Donations are another funding source, though they are not appropriated. All funds, regardless of fund source, are tracked by the park's financial system.

Investments – One-time expenditures that include both physical improvements (e.g., a new bridge or wayside exhibit) as well as "informational" improvements (e.g., biological or archeological inventories).

Maintenance – The maintenance functional area includes activities directed solely to prolonging the life of park assets and infrastructure through substantial repair, replacement, or rehabilitation of park assets, such as buildings, roads, trails, utilities, fleet vehicles, and equipment. These activities are generally completed on a cycle that is greater than one year.

Management and Administration – This functional area encompasses all management and administrative support activities provided parkwide, including all park communications, and external affair activities, park level planning, human resource management, information technology, park leadership, and financial management. The scope of this functional area does not include program specific costs of management and administration captured entirely by programs under other functional areas.

Operating Formulation System (OFS) – A web-based system used to develop, maintain, and access a current and complete inventory of program needs, while at the same time providing a basis for the annual budget process.

Project Management Information System (PMIS) – This is a prioritized list of investments required to eliminate deferred projects and project backlogs.

Program – A comprehensive list of operations executed at a park unit. Examples include procurement, visitor safety services, cultural resource management, and roads maintenance.

Reimbursable – Defined funds expended for activities done by the park or park staff which are later reimbursed by another Federal or cooperating agency.

Resource Management – The resource management functional area includes all activities related to the management, preservation, and protection of the park's cultural and natural resources, including natural and cultural resource management and information integration activities, such as the development and maintenance of a Geographical Information System (GIS).

Revenue – This funding source includes all fee revenues, permit revenues, donated funds, services, and items.

Visitor Experience and Enjoyment – This functional area includes all park activities directly related to providing park visitors with a safe and educational experience while at the park. The program includes all interpretation, visitor center management, interpretative media, concessions management, fee collection, and visitor safety services. Safety services frequently include structural fire, search and rescue activities, and EMS services.

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BANDELIER NATIONAL MONUMENT